



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,440	08/23/2006	Rabah Arhab	1200.761	8473
7590 Berenario White & Stavish Suite 240 6550 Rock Spring Drive Bethesda, MD 20817	01/29/2009		EXAMINER LIGERAKIS, JOHN	
			ART UNIT 3655	PAPER NUMBER
			MAIL DATE 01/29/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/590,440	ARHAB ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John V. Ligerakis	3655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 24 November 2008.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-3,5-7,9,10,12 and 14 is/are rejected.

7) Claim(s) 4,8,11 and 13 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 24 November 2008 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

This office action is in response to the amendment received on November 24, 2008. Claims 1-14 are currently pending.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 1, 2, 7, 9, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al. (US 2003/0042098) in view of Worner et al. (US Patent 5, 533, 602).** Takeuchi et al. discloses (See Fig. 1) a hydrokinetic coupling apparatus (10) comprising a casing (12) of including a rear shell (14) adapted to be coupled in rotation to a driving shaft, an impulse wheel (18), and a front shell (16); a turbine wheel (20), arranged for rotation with a turbine hub (22), adapted to be coupled in rotation to a driven shaft (24); a lock-up clutch (See [0023], line 2) for coupling the driving shaft and the driven shaft (24) together, the lock-up clutch being operatively interposed between the turbine wheel (20) and the rear shell (14) and comprising a piston (30) moveable axially for releasably coupling together the rear shell (14) and the driven shaft (24), and which includes a damping device, the damping device comprising at least one guide ring (portion between 30 and 34) constituting the input element, a damper plate (32) constituting the output element (32), and circumferentially acting elastic members (34) interposed between the input element and the output element (32) coupled together in rotation but with the ability to perform predetermined circumferential

displacement, the turbine wheel (20), the turbine hub (22) and the damper plate (32) of the damping device being non-rotatably coupled by means of rigid joints (35), the damper plate (32) comprising at its inner radial end a flange portion (bent portion between portions of the damper plate which are perpendicular to the driven shaft) axially extending toward the turbine wheel (20) and non-rotatably coupled.

Takeuchi et al. fails to disclose the damper plate coupled by friction welding to the turbine wheel and turbine hub. Worner et al. discloses a hydrodynamic torque converter (See Fig. 1) comprising a turbine hub (9) with a radial plate portion (16) which includes an annular boss which extends axially forward, a turbine wheel of a torque converter in that the output element (19) comprising at its inner radial end a flange portion (14) axially extending toward the turbine wheel (8) and non-rotatably coupled by friction welding (See Col 5, lines 8-10 and 25-27). It would have been obvious to one of ordinary skill in the art at the time of the invention to connect the turbine wheel, damper plate, and turbine hub disclosed by Takeuchi et al. with the friction welding disclosed by Worner et al. since using the known alternative connection would have yielded predictable results.

### ***Allowable Subject Matter***

Claims 3-6, 8, and 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Examiner notes the applicant's remarks regarding having submitted a supplemental Information Disclosure Statement (See Page 8, lines 6-10), however the supplemental Information Disclosure Statement is not on file. Apparently, it has not been received.

The amendment to the drawing received on November 24, 2008, is acceptable and overcomes the objection set forth in the previous office action. Accordingly, the objection to the drawing is withdrawn.

The amendments to claims 3, 5, 6, 10, and 12 submitted on November 24, 2008, are acceptable, and overcome the rejections under 35 U.S.C. 112, second paragraph. The rejections under 35 U.S.C. 112, second paragraph, are withdrawn.

Applicant's arguments filed on November 24, 2008 have been fully considered but they are not persuasive. Applicant contends, see page 10, lines 12-14, none of the references cited teaches the damper plate comprising the flange portion axially extending toward the turbine wheel and non-rotatably coupled thereto by friction welding. However, Takeuchi et al. does disclose a damper plate (32) comprising a flange portion that is axially offset towards the turbine wheel (20), and thus in a broad sense can be considered axially extending, and the flange is nonrotatably coupled to the turbine wheel. Worner et al. discloses the use of friction welds for coupling.

Further, applicant contends, see page 11, lines 15-17, the rivet of Takeuchi cannot be replaced with the friction welding of Worner et al, as one or more connecting elements would need to be provided with one or more axially extending flanges.

However, applicant acknowledges (See page 11, line 15) that those skilled in the art would realize that the elements would need to be provided with one or more axially extending flanges, similar to the projections of Worner et al., to provide for welding.

Finally, applicant contends, see page 12, lines 1-7, connecting the turbine wheel, damper plate, and turbine hub disclosed by Takeuchi et al would require a rearrangement of parts. However, Examiner respectfully disagrees. The order of the elements disclosed by Takeuchi does not need to be changed. Further, Worner et al. discloses axially extending flanges, but it does not appear to be of patentable significance which elements carry the flanges.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Ligerakis whose telephone number is (571) 270-3278. The examiner can normally be reached on M-Th 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (571)272-7095. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9179 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call (800) 786-9199 (IN USA OR CANADA) or (571) 272-1000

/John V Ligerakis/

Examiner, Art Unit 3655

/Rodney H. Bonck/

Primary Examiner, Art Unit 3655